United States
Department of
Agriculture

Natural
Resources
Conservation
Service

Idaho
Basin Outlook Report
January 1, 1995

Basin Outlook Reports
and
Federal - State - Private
Cooperative Snow Surveys

For more water supply and resource management information, contact:

Your local Natural Resources Conservation Service Office
or
Natural Resources Conservation Service
Snow Surveys
3244 Elder Street, Room 124
Boise, ID 83705-4711
(208) 334-1614

How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

IDAHO WATER SUPPLY OUTLOOK REPORT

JANUARY 1, 1995

SUMMARY

Abundant early season snowfall has Idaho water users hopeful for an adequate water supply this year. Dry conditions in late December and early January, are raising concerns over the future outlook. With reservoir levels near an all time low, Idaho will need a near normal or better snowpack just to ensure a sufficient irrigation supply next summer. Snowpacks throughout the state are currently near or above average, but the wet trend will have to continue for several more months before our water concerns are alleviated.

NEW NAME FOR OUR AGENCY!

The USDA Soil Conservation Service has a new name! The Secretary of Agriculture recently created the "Natural Resources Conservation Service" (NRCS) as part of the USDA reorganization authorized by Congress. Our name change more accurately reflects what we do: working hand-in-hand with the American people to conserve ALL natural resources. The Snow Survey and Water Supply Forecasting program will continue to be a vital part of this restructured USDA agency.

SURFACE WATER SUPPLY INDEX

The NRCS is pleased to announce the release of a new product to assist water users in the state. The "Surface Water Supply Index" (SWSI) integrates two major sources of surface water supply: reservoir storage and projected streamflow. The index provides a more comprehensive outlook of surface water availability than streamflow forecasts or reservoir storage information. The SWSI will be published in this report during the January through May forecast season.

SNOWPACK

Idaho's mountain snowpack began building early this year thanks to heavy snowfall in early November. Skiers throughout the state were delighted with one of the best early season openings in memory. The trend continued into early December bringing the snowpack to near or above average conditions statewide. Unfortunately, drier conditions prevailed during the last half of December. The best snowpack conditions are in northern Idaho and the Henrys Fork/Teton basin, where conditions are 130 to 150% of normal. With over half of the winter remaining, snowfall must continue for the next few months to maintain our current optimistic outlook.

PRECIPITATION

Heavy rainfall improved soil moisture conditions in Idaho's mountains after a hot dry summer. Precipitation was especially heavy in the northern portion of the state, where some SNOTEL sites reported as much as 13.0 inches during October. Cooler weather during November brought snow to almost all elevations of the state and continued the wet trend established in October. Snowfall didn't really slow down until mid-December; by that time all drainage basins in the state were reporting above average precipitation for the water year. Temperatures have been near average this fall with the exception of November: Boise reported a departure of 7.3 degrees below normal for November.

RESERVOIRS

Combined storage in Idaho's major reservoirs is near record low levels, as reserves were used to supplement last year's meager runoff. Without this "savings account", we are almost totally dependent on this year's snowpack for our water supply. The situation is especially critical in the Boise and Big Wood drainages, where reservoir storage is only 35 and 11% of average, respectively. The upper Snake reservoirs are currently reporting 40% of capacity; this is only 62% of normal storage for this time of year.

Note: NRCS reports reservoir information in terms of usable volume, which includes both active, inactive, and in some cases dead storage. Other operators may report reservoir contents in different terms. For additional information, see the reservoir definitions in the back of this report.

STREAMFLOW

Streamflow volumes were below normal throughout the state in October, November and December, despite near to above normal precipitation this fall. This is due to well below normal runoff last year, an extended warm dry summer and earlier than normal seasonal snowpack. Fall streamflow volumes were around 60 to 75% of average everywhere except in the Panhandle region and the Upper Snake where 80 to 100% of normal flows were recorded. Streamflow forecasts for this summer are highly variable around the state due to the diverse snowpack conditions. Most areas are projected in the 90 to 110% of average range with a few exceptions. The Henrys Fork of the Snake has the highest snowpack in the state and is expected to yield 120% of the normal April - September volume. The Bear River in southeastern Idaho is forecast at 90% of average, one of the lowest in the state.

RECREATION OUTLOOK

Abundant snowpack provides a multitude of recreational opportunities; the early snowfall this year has brought smiles to skiers, snowmobilers, and other winter enthusiasts alike. If the snow continues to fall, river and reservoir based recreation opportunities will abound in the summer of 1995. Current projections call for good flows in all the major recreational rivers of the state. The southwestern Idaho rivers (Jarbidge, Bruneau, and Owyhee) will have an extended floating season if the current trends continue. Northern Idaho snowpacks are above average, indicating a good probability for high flows this spring. Snowpacks in the Salmon basin are just above average, and river runners are hopeful for a long boating season. With over half of the snow season yet to come, things could change over the next few months. Stay tuned for updated information as the season progresses!

IDAHO SURFACE WATER SUPPLY INDEX

The Surface Water Supply Index (SWSI) is a predictive indicator of surface water availability within a watershed for the spring and summer water use season. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow. SWSI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry), with a value of zero indicating a median water supply as compared to historical occurrences.

SWSI values are published January through May, and provide a more comprehensive outlook of water availability than either streamflow forecasts or reservoir storage figures alone. The SWSI index allows comparison of water availability between basins for drought or flood severity analysis. Threshold SWSI values have been established for most basins to indicate the potential for agricultural water shortages.

The following agencies and cooperators provide assistance in the preparation of the Surface Water Supply Index for Idaho:

US Department of Agriculture, Natural Resources Conservation Service
US Department of Interior, Bureau of Reclamation
US Department of Commerce, National Weather Service
US Army Corps of Engineers
Idaho Department of Water Resources
Idaho Water Users Association
PaciCorp

IDAHO SURFACE WATER SUPPLY INDEX (SWSI)
As of January 1, 1995

Basin or Region	SWSI	Most Recent Year With Similar SWSI Value	Agricultural Water Supply Shortages May Occur When SWSI Is Less Than:
Panhandle	-0.5	1989	NA
Clearwater	0.6	1990	NA
Salmon	-0.7	1981	NA
Weiser	-1.5	1981	NA
Payette	1.2	1993	NA
Boise	-1.4	1985	-2.6
Big Wood	-1.0	1981	-1.4
Little Wood	0.9	1993	-2.1
Big Lost	0.9	1981	-0.8
Little Lost	0.2	1980	0.0
Henrys Fork	1.9	1993	-3.3
Snake (American Falls)	1.2	1980	-2.0
Oakley	-0.4	1993	0.0
Salmon Falls	0.6	1987	0.0
Bruneau	0.6	1989	NA
Owyhee	-1.7	1993	NA
Bear River	-3.6	1991/92	-3.8

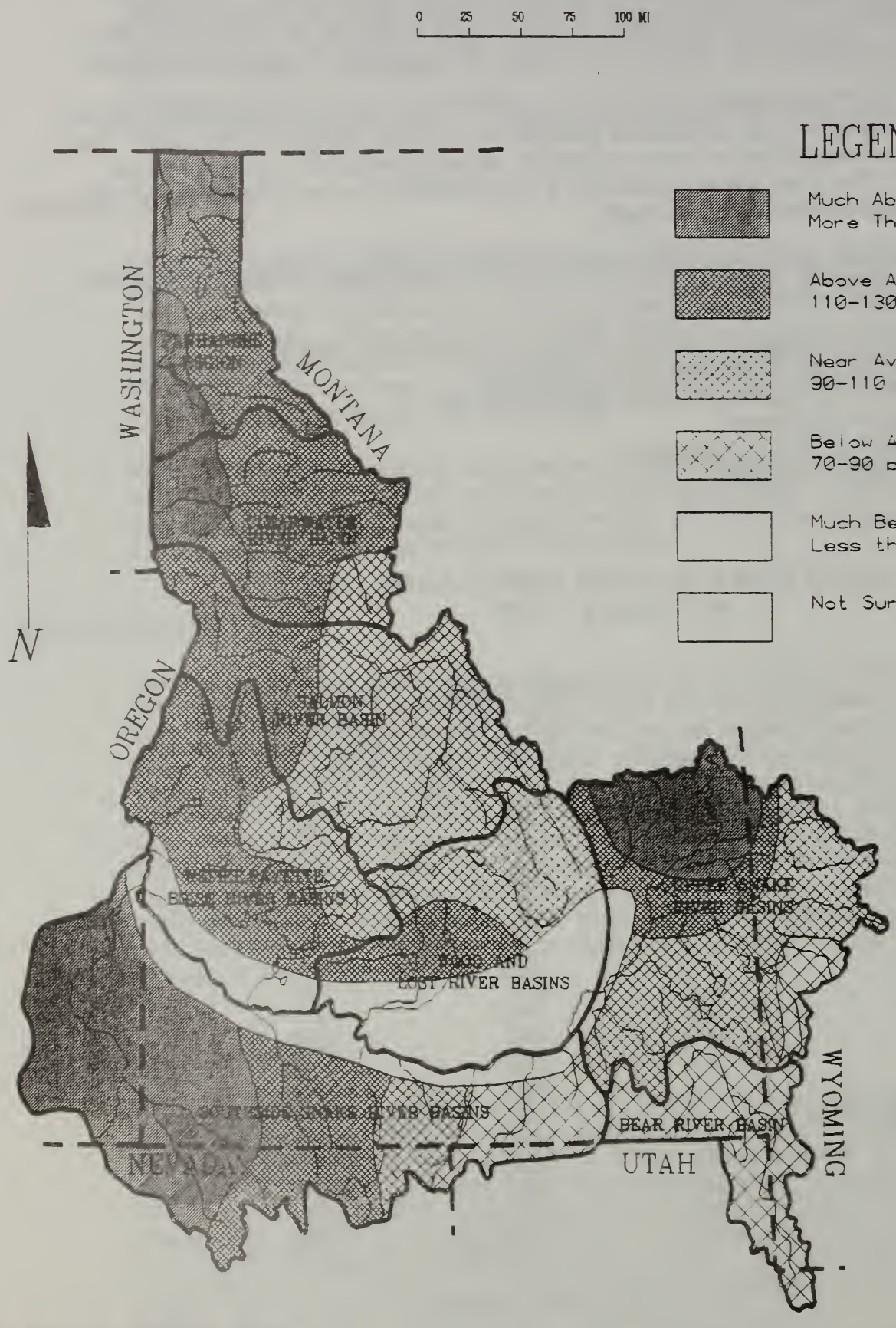
NA - Not Applicable

SWSI Scale

1.5 to 4.1	Above Normal Supply
-1.5 to 1.5	Near Normal Supply
-3.0 to -1.5	Below Normal Supply
-4.1 to -3.0	Very Short Supply

IDAHO MOUNTAIN SNOWPACK

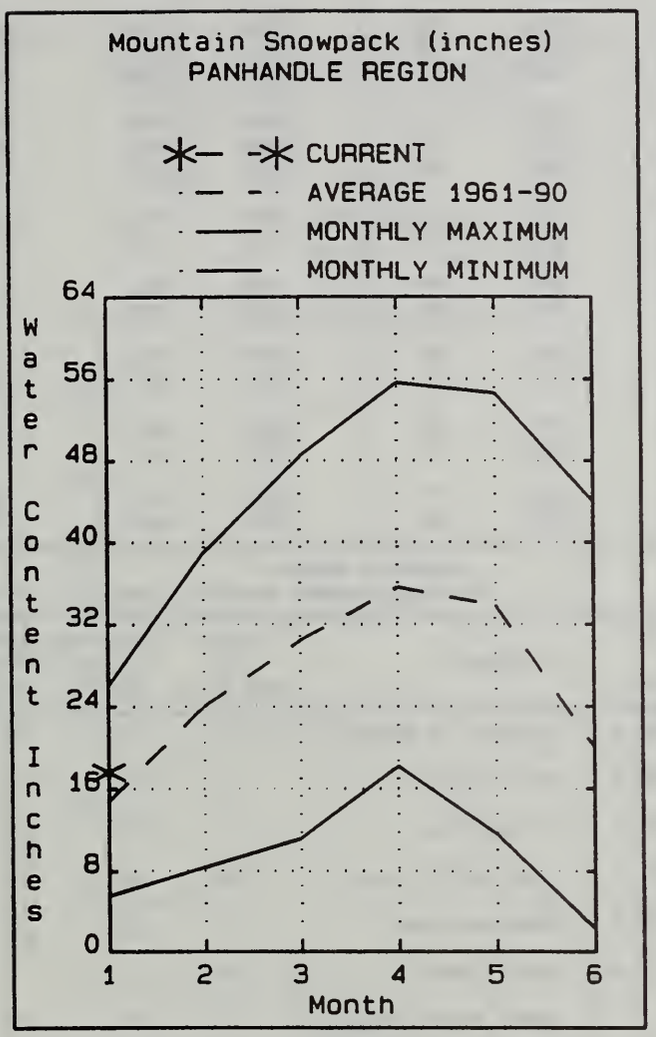
JANUARY 1, 1995

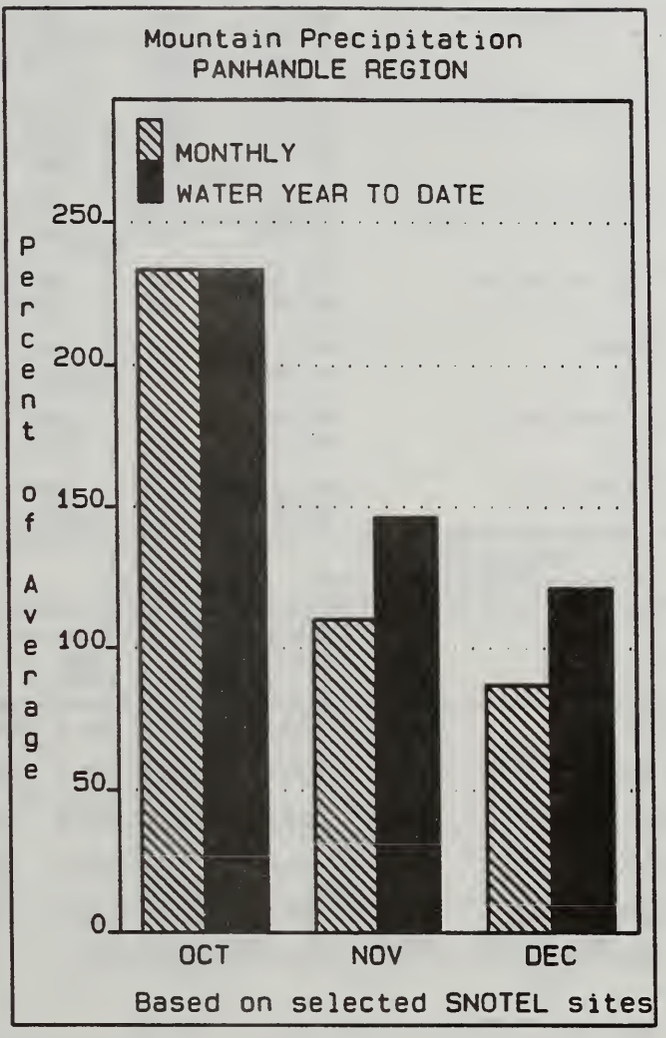


NATURAL RESOURCES CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

PANHANDLE REGION

JANUARY 1, 1995





WATER SUPPLY OUTLOOK

The new water year got off to a good start in the Idaho Panhandle; October rainfall was nearly twice the normal amount, and November yielded just above normal precipitation. The wet trend slowed down in mid-December bringing the water year to date total to just slightly above average by January 1. Early season snowpack levels are encouraging, ranging from 110 to 150% of average. This is almost twice the amount of snow on the ground this time last year. Reservoir storage ranges from 73 to 106% of average in the Panhandle. Streamflow forecasts call for 103% of average for the Spokane River near Post Falls and 86% for the Pend Oreille Lake Inflow. If the current conditions persist for the remainder of the winter, northern Idaho will have a much better water year in 1995 than last year.

PANHANDLE REGION
Streamflow Forecasts - January 1, 1995

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ====== Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
KOOTENAI at Leonia (1,2)	APR-JUN	3460	4770	5360	94	5950	7260	5701
	APR-JUL	4420	6050	6790	94	7530	9160	7199
	APR-SEP	5090	6960	7810	94	8660	10500	8275
CLARK FK at Whitehorse Rpds (1,2)	APR-JUN	4430	7330	8640	86	9950	12800	10050
	APR-JUL	5170	8560	10100	86	11600	15000	11730
	APR-SEP	5670	9410	11100	86	12800	16500	12910
PEND OREILLE Lake Inflow (1,2)	APR-JUN	4720	8210	9800	86	11400	14900	11390
	APR-JUL	5920	9620	11300	86	13000	16700	13150
	APR-SEP	6510	10600	12400	86	14200	18300	14370
PRIEST nr Priest River (1,2)	APR-JUL	440	655	750	92	845	1060	814
	APR-SEP	470	695	800	92	905	1130	868
COEUR D'ALENE at Enaville	APR-JUL	565	720	824	107	930	1090	770
	APR-SEP	485	755	865	107	975	1240	809
ST.JOE at Calder	APR-JUL	875	1060	1180	101	1300	1480	1169
	APR-SEP	830	1120	1250	101	1380	1670	1237
SPOKANE near Post Falls (2)	APR-JUL	1930	2400	2717	103	3030	3500	2633
	APR-SEP	2020	2500	2820	103	3140	3620	2730
SPOKANE at Long Lake	APR-JUL	2200	2690	3016	103	3350	3830	2936
	APR-SEP	2400	2900	3245	103	3590	4090	3159

PANHANDLE REGION
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HUNGRY HORSE	3451.0	1716.0	1535.0	2586.0
FLATHEAD LAKE	1791.0	1138.0	1070.0	1305.0
NOXON RAPIDS	335.0	321.2	311.3	317.1
PEND OREILLE	1561.3	545.2	536.5	744.9
COEUR D'ALENE	238.5	115.5	60.5	130.5
PRIEST LAKE	119.3	58.0	59.0	54.8

PANHANDLE REGION
Watershed Snowpack Analysis - January 1, 1995

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Kootenai ab Bonners Ferry	19	151	114
Moyie River	2	190	97
Priest River	4	175	145
Pend Oreille River	69	163	115
Rathdrum Creek	4	159	177
Hayden Lake	0	0	0
Coeur d'Alene River	5	181	112
St. Joe River	2	223	128
Spokane River	11	180	135
Palouse River	1	232	165

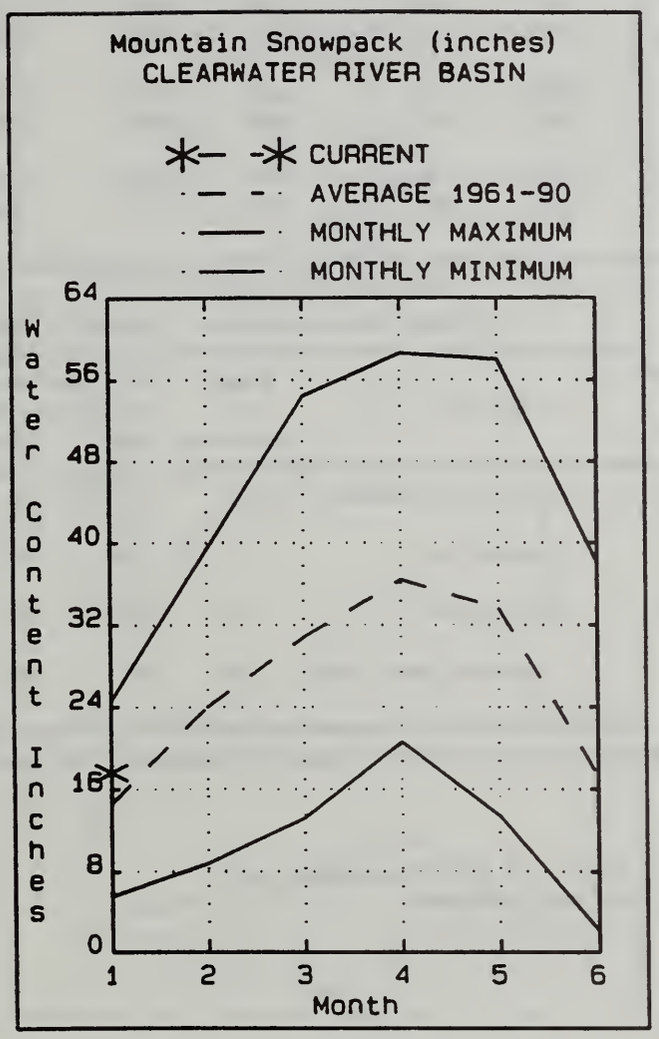
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

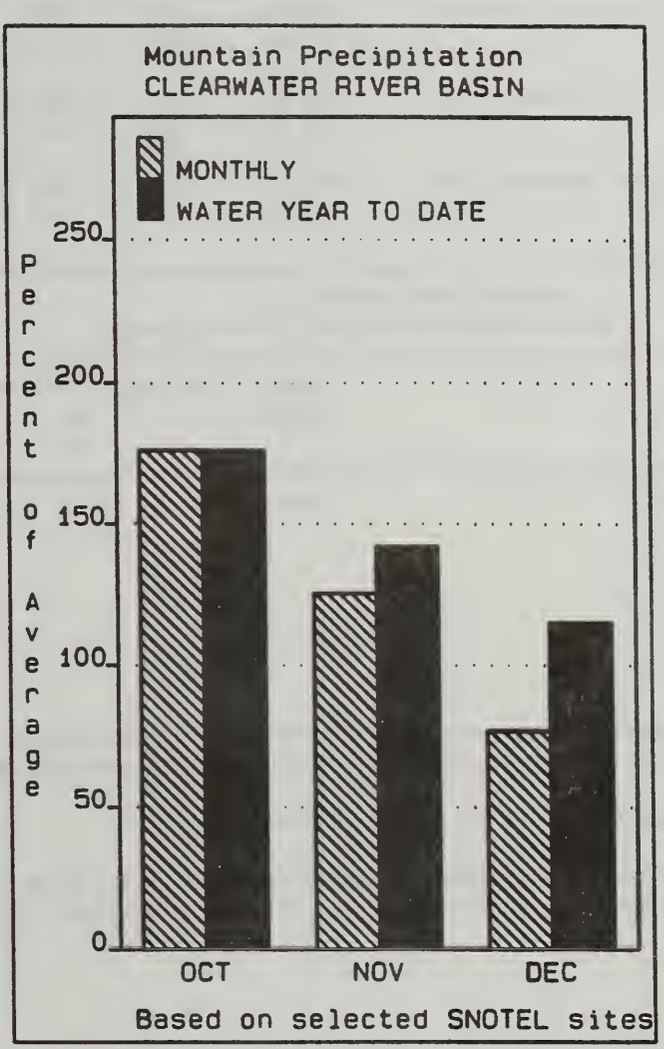
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

CLEARWATER RIVER BASIN

JANUARY 1, 1995





WATER SUPPLY OUTLOOK

The 1995 water year started off well in the Clearwater basin, with October yielding 176% of average moisture. Drier conditions followed, with only 77% of average recorded in December. Precipitation for the water year to date is 115% of average. Snowpack conditions followed the precipitation pattern, but percentages have been dropping since mid-December. Snowpacks in the Clearwater basin currently range from 110 to 120% of average; about twice the amount of snow as last year. Dworshak Reservoir is just over half full which is 78% of the December 31 average. Streamflow forecasts call for 106% of average flow for Dworshak Reservoir Inflow and 108% for the Clearwater River at Spalding. If the wet pattern continues, spring runoff should easily be better than last year.

CLEARWATER RIVER BASIN
Streamflow Forecasts - January 1, 1995

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
DWORSHAK Reservoir Inflow (2)	APR-JUL	1590	2530	2840	105	3150	4060	2692
	APR-SEP	2230	2710	3030	106	3350	3830	2866
CLEARWATER at Orofino (1)	APR-JUL	2710	4230	4920	104	5610	7130	4718
	APR-SEP	2860	4460	5190	104	5920	7520	4976
CLEARWATER at Spalding (1,2)	APR-JUL	4500	7070	8240	108	9410	12000	7618
	APR-SEP	4740	7460	8700	108	9940	12700	8052

CLEARWATER RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
DWORSHAK	3459.0	1903.0	2502.7	2431.0

CLEARWATER RIVER BASIN
Watershed Snowpack Analysis - January 1, 1995

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
North Fork Clearwater	11	215	123
Lochsa River	4	180	116
Selway River	5	162	109
Clearwater Basin Total	19	201	120

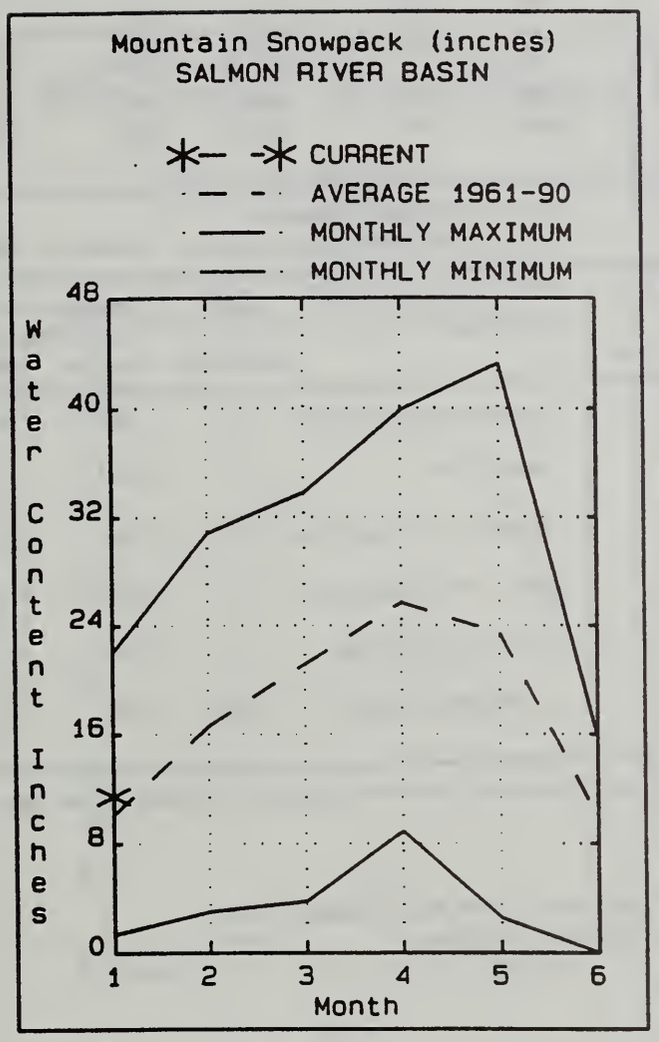
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

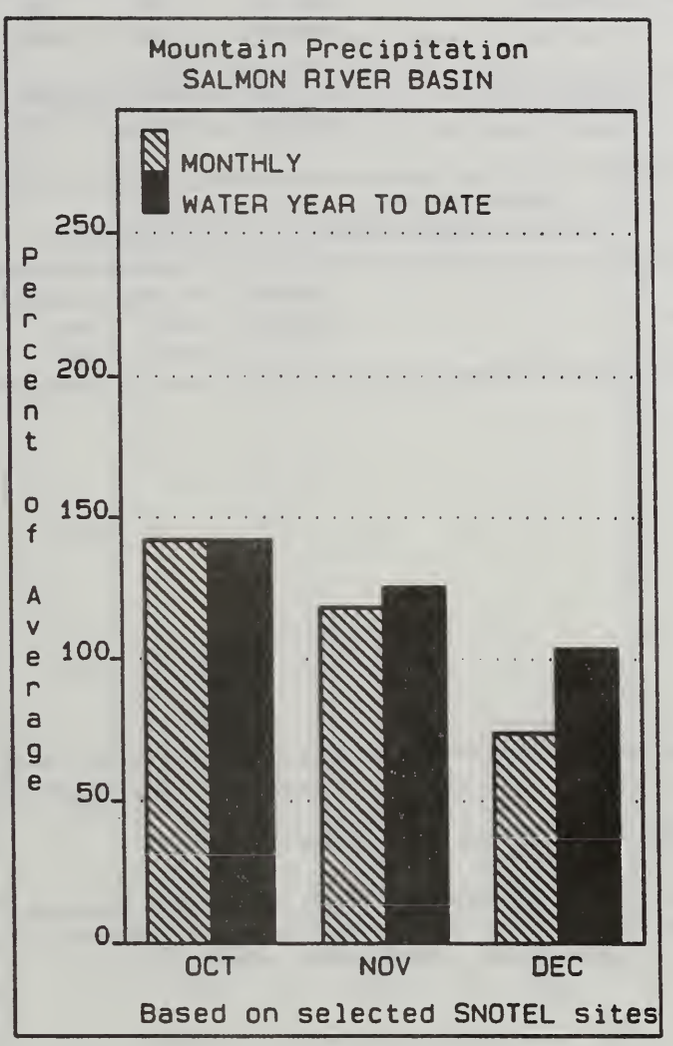
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

SALMON RIVER BASIN

JANUARY 1, 1995





WATER SUPPLY OUTLOOK

Mountain precipitation in the Salmon basin was above average in October but decreased to only 74% of average by December. Precipitation for the water year to date is just about normal. Snowpacks range from near average in the upper Salmon River basin to 123% of average in the Little Salmon basin. Streamflow forecasts call for 89% of average for the Salmon River at Salmon and 90% of average for the Salmon River at White Bird. If wet conditions prevail for the next few months, river runners and other water users can expect a good runoff season.

SALMON RIVER BASIN

Streamflow Forecasts - January 1, 1995

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SALMON at Salmon (1)	APR-JUL	330	630	770	89	910	1210	869
	APR-SEP	385	745	905	89	1070	1420	1019
SALMON at White Bird (1)	APR-JUL	3000	4620	5350	90	6080	7700	5956
	APR-SEP	3330	5120	5930	90	6740	8530	6602

SALMON RIVER BASIN

Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

SALMON RIVER BASIN

Watershed Snowpack Analysis - January 1, 1995

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Salmon River ab Salmon	8	225	98
Lemhi River	4	228	112
Middle Fork Salmon River	3	209	104
South Fork Salmon River	3	223	119
Little Salmon River	4	188	123
Salmon Basin Total	23	208	111

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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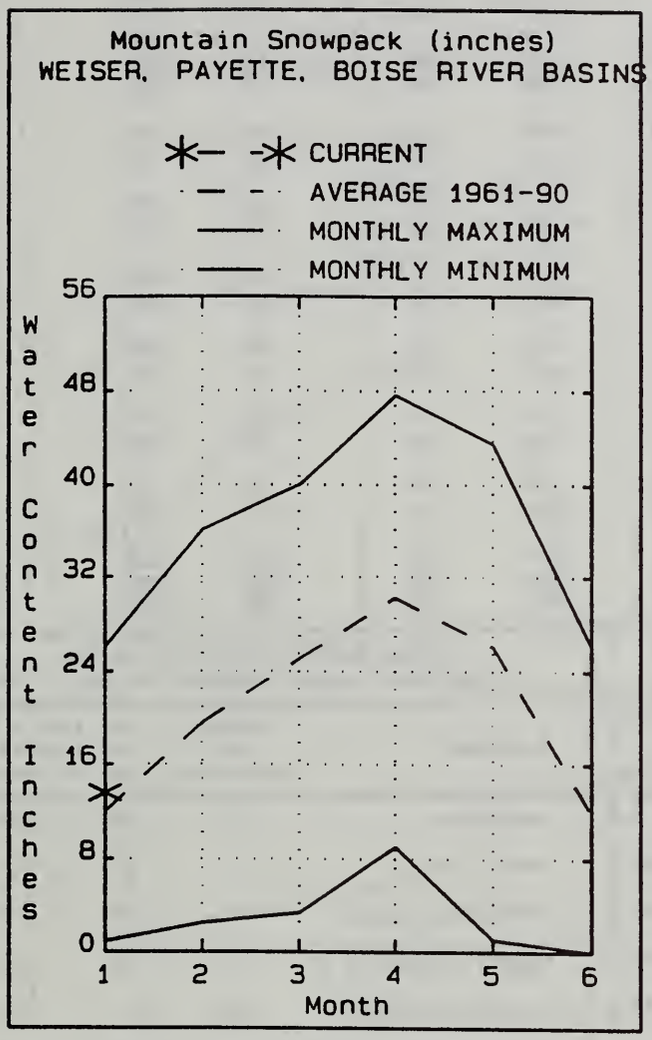
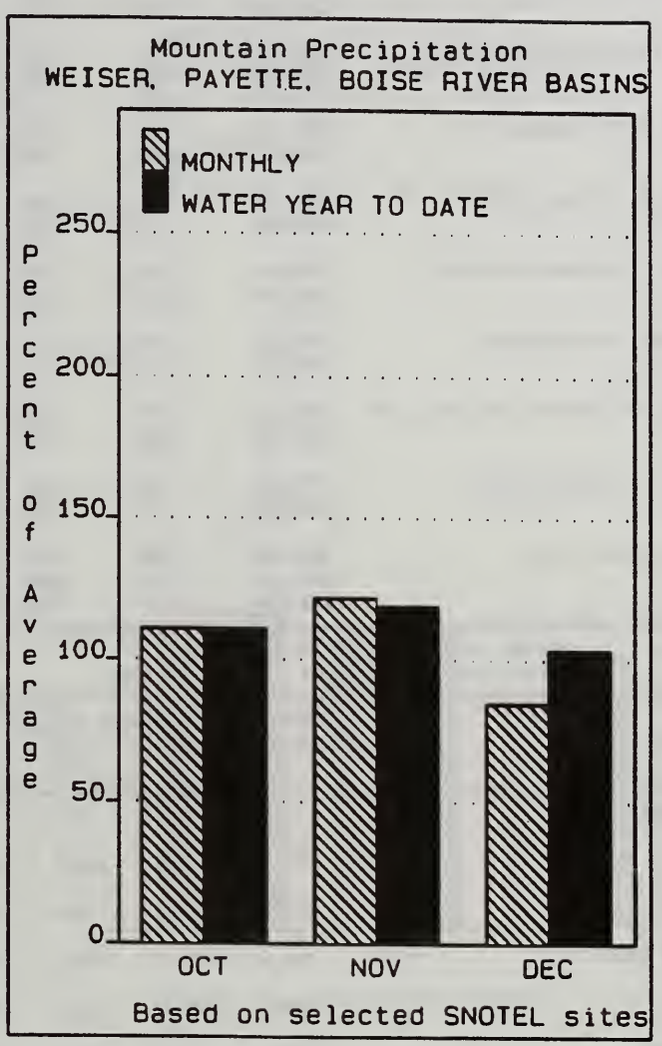
(2) - The value is natural flow - actual flow may be affected by upstream water management.

WEISER, PAYETTE, BOISE RIVER BASINS

JANUARY 1, 1995





WATER SUPPLY OUTLOOK

After a very dry summer, fall rains and early season snowfall finally extinguished the last of the forest fires. Above normal precipitation fell in October and November while December yielded only 85% of average. The water year to date precipitation is just about average. Snowpacks range from 128% of average in the Weiser basin to 105% in the SF Boise River basin. Low elevation snowpacks are well above normal throughout the area. Reservoir storage remains at a critically low level in the Boise basin, 21% of useable capacity (35% of average). Reservoir storage in the Payette basin is better at 47% of capacity (83% of average). Streamflow forecasts call for 95% of average for the Boise River near Boise and 114% of average for the Payette River near Horseshoe Bend. Water users should monitor the next few months carefully as conditions may improve or deteriorate, depending on the weather.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts - January 1, 1995

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
WEISER nr Weiser (1)	APR-JUL	93	260	335	87	410	535	386
	APR-SEP	99	280	360	87	440	620	415
SF PAYETTE at Lowman	APR-JUL	320	405	462	107	520	605	432
	APR-SEP	340	430	490	100	550	645	488
DEADWOOD RESERVOIR Inflow (2)	APR-JUL	85	122	137	101	152	188	135
	APR-SEP	104	127	142	99	157	180	143
NF PAYETTE nr Cascade (2)	APR-JUL	415	515	580	117	645	745	496
	APR-SEP	440	545	615	115	685	790	533
NF PAYETTE nr Banks (2)	APR-JUL	485	620	710	117	800	935	607
	APR-SEP	555	700	794	115	890	1030	690
PAYETTE nr Horseshoe Bend (2)	APR-JUL	1330	1650	1860	115	2070	2390	1618
	APR-SEP	1300	1780	2000	114	2220	2690	1755
BOISE near Twin Springs	APR-JUL	430	545	625	99	705	820	631
	APR-SEP	470	590	672	98	755	875	686
SF BOISE at Anderson Rnch Dm (1,2)	APR-JUL	300	450	515	95	580	730	544
	APR-SEP	320	475	542	93	610	765	582
MORES CK nr Arrowrock Dam	APR-JUL	109	132	147	114	163	186	129
	APR-SEP	114	137	153	114	169	193	134
BOISE nr Boise (1,2)	APR-JUN	750	1060	1200	95	1340	1650	1264
	APR-JUL	765	1200	1370	96	1540	1980	1421
	APR-SEP	895	1280	1452	95	1630	2010	1535

WEISER, PAYETTE, BOISE RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MANN CREEK	11.1	0.9	3.1	4.2
CASCADE	703.2	355.6	453.5	419.7
DEADWOOD	161.9	53.1	100.5	73.7
ANDERSON RANCH	464.2	57.2	355.3	319.9
ARROWROCK	286.6	88.2	212.3	193.8
LUCKY PEAK	293.2	69.0	104.4	94.5
LAKE LOWELL (DEER FLAT)	177.1	30.9	37.6	126.0

WEISER, PAYETTE, BOISE RIVER BASINS
Watershed Snowpack Analysis - January 1, 1995

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Mann Creek	1	186	143
Weiser River	3	177	128
North Fork Payette	7	193	131
South Fork Payette	4	209	107
Payette Basin Total	12	201	124
Middle & North Fork Boise	7	227	112
South Fork Boise River	7	232	105
Mores Creek	4	245	147
Boise Basin Total	14	230	118
Canyon Creek	1	244	142

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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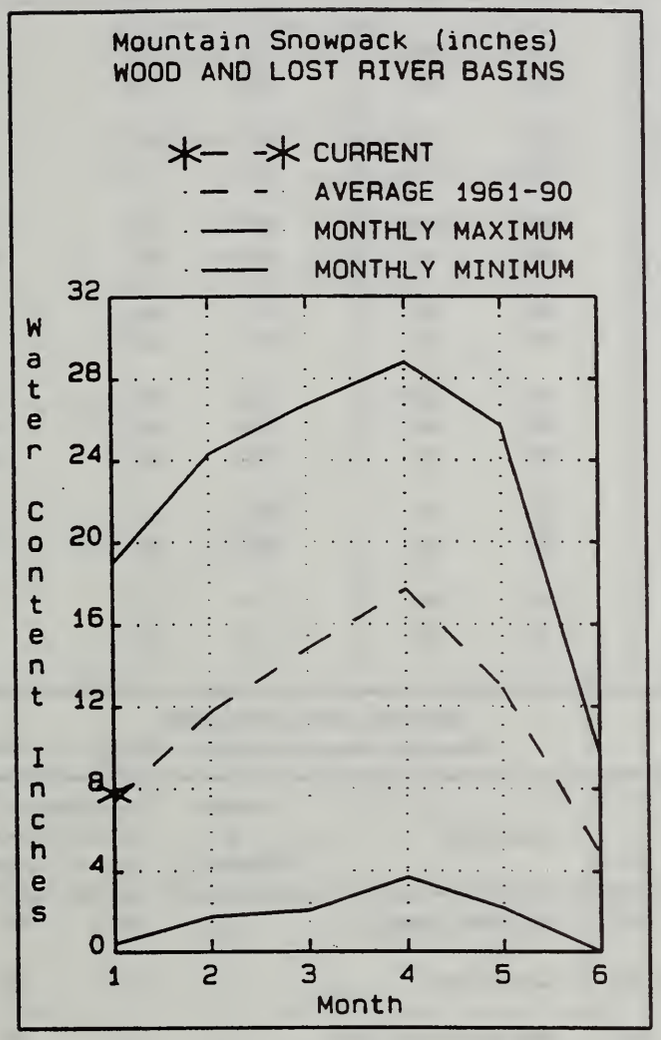
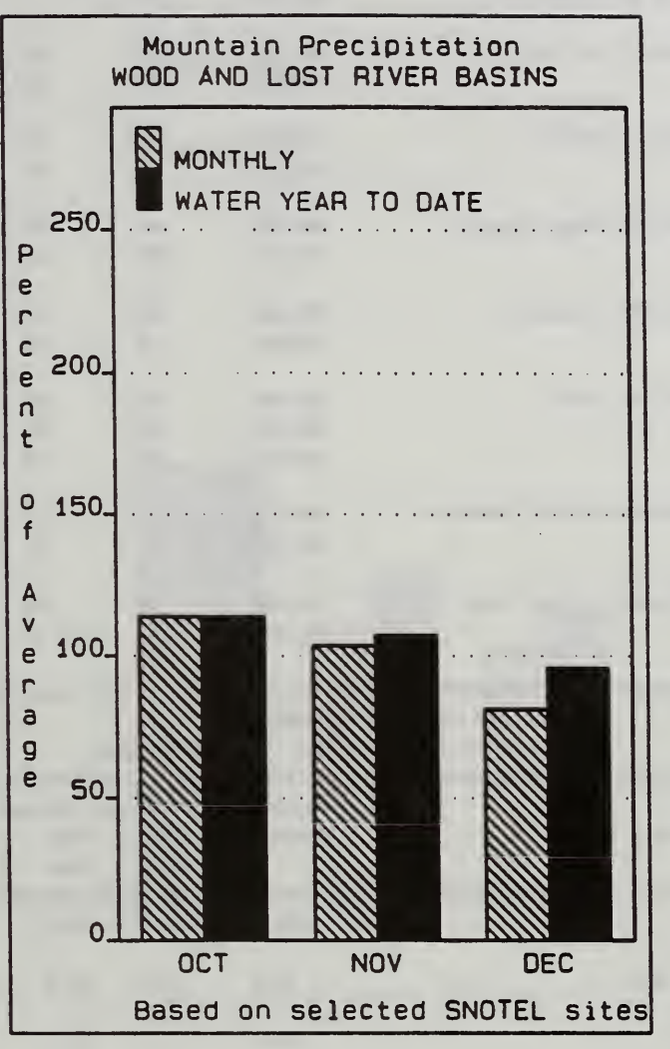
(2) - The value is natural flow - actual flow may be affected by upstream water management.

WOOD and LOST RIVER BASINS

JANUARY 1, 1995





WATER SUPPLY OUTLOOK

Mountain precipitation in central Idaho was near average during the fall and stands at 96% of average for the water year. The low elevation snowpacks are above average with Camas Creek reporting 128% of average. The high elevation snowpacks, where the majority of the runoff comes from, are reporting near average conditions. Carryover storage in Magic Reservoir is the same as in December 1992, with 10,000 acre-feet, only 5% of capacity. Reservoir storage in Little Wood and Mackay is also low, 20% and 34% of capacity, respectively. Streamflow forecasts call for 98% of average for Magic Reservoir Inflow and 107% for the Big Lost River. With more than half the snow season yet to come, water users should monitor the next few months carefully as shortages may occur if the runoff is much below normal.

WOOD AND LOST RIVER BASINS
Streamflow Forecasts - January 1, 1995

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BIG WOOD AT HAILEY (1)	APR-SEP	152		303	106		460	286
BIG WOOD nr Bellevue	APR-JUL	98	157	196	107	235	295	183
	APR-SEP	110	170	210	107	250	310	197
CAMAS CK nr Blaine	APR-JUL	61	95	118	116	141	175	102
	APR-SEP	61	95	118	115	141	175	103
BIG WOOD blw Magic Dam (2)	APR-JUL	160	245	303	103	360	445	294
	APR-SEP	105	245	303	98	360	505	309
LITTLE WOOD nr Carey	APR-JUL	49	76	95	103	114	141	92
	APR-SEP	49	78	97	98	116	145	99
BIG LOST at Howell	APR-JUN	89	120	141	100	162	194	141
	APR-JUL	110	152	181	100	210	250	181
	APR-SEP	133	179	210	102	240	285	206
BIG LOST blw Mackay Reservoir (2)	APR-JUL	111	143	165	110	187	220	150
	APR-SEP	122	172	195	107	220	270	182
LITTLE LOST blw Wet Creek	APR-JUL	24	30	33	107	37	42	31
	APR-SEP	31	37	42	107	46	53	39

WOOD AND LOST RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MAGIC	191.5	10.0	78.0	89.0
LITTLE WOOD	30.0	5.9	20.3	13.5
MACKAY	44.4	15.1	23.4	26.4

WOOD AND LOST RIVER BASINS
Watershed Snowpack Analysis - January 1, 1995

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Big Wood ab Magic	8	232	105
Camas Creek	3	219	128
Big Wood Basin Total	11	229	109
Little Wood River	3	216	113
Fish Creek	0	0	0
Big Lost River	5	202	103
Little Lost River	3	234	102

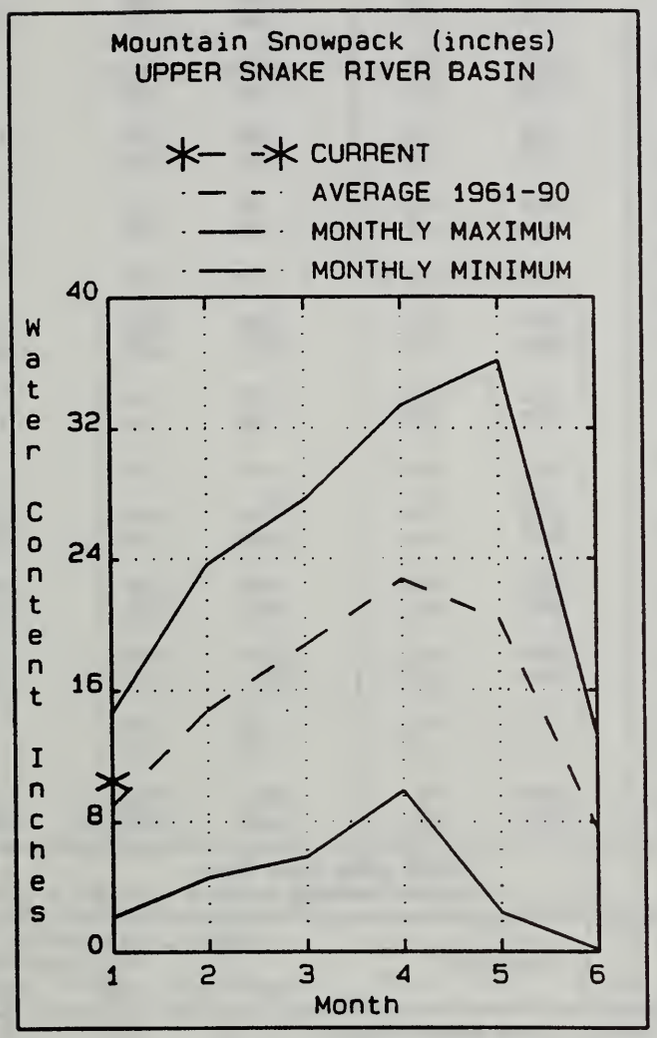
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

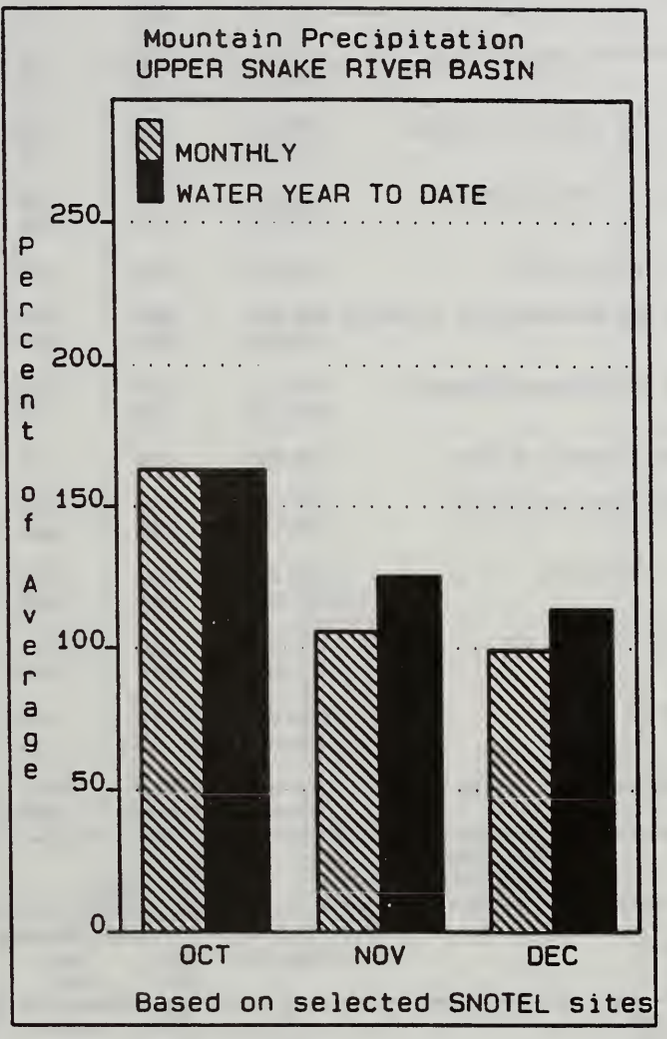
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

UPPER SNAKE RIVER BASIN

JANUARY 1, 1995





WATER SUPPLY OUTLOOK

Mountain precipitation in eastern Idaho was well above average in October (163% of average) but decreased to near normal levels in November and December. Water year to date precipitation for the Upper Snake basin is 114% of average. The mountain snowpack started off well above average, but the dry spell starting in mid-December has caused the percentages to drop significantly. The snowpack in the Henrys Fork basin is 154% of average -- one of the best in the state. Basins to the south are much drier with the Hoback River in Wyoming reporting only 77% of average. Reservoir storage for the eight major reservoirs in the area is 40% of capacity -- about half of last year's storage at this time. Streamflow forecast range from 120% for the Henrys Fork to 102% for the Greys River. With very little carryover storage, runoff of 70% or better is needed to meet most water user demands this year.

UPPER SNAKE RIVER BASIN
Streamflow Forecasts - January 1, 1995

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
HENRYS FORK nr Ashton (2)	APR-JUL	545	600	642	118	680	740	544
	APR-SEP	745	800	845	116	890	950	730
HENRYS FORK nr Rexburg (2)	APR-JUL	1230	1370	1475	120	1580	1720	1228
	APR-SEP	1400	1720	1830	118	1940	2230	1551
FALLS RIVER nr Squirrel (2)	APR-JUL	325	395	420	115	445	515	364
	APR-SEP	430	475	505	117	535	580	432
TETON abv S Leigh Ck nr Driggs	APR-JUL	138	165	184	120	200	230	153
	APR-SEP	182	215	239	120	260	295	199
TETON nr St. Anthony (2)	APR-JUL	345	405	446	119	485	545	375
	APR-SEP	415	485	530	117	575	645	454
SNAKE nr Moran (1,2)	APR-SEP	650	790	880	101	970	1110	869
SNAKE R abv Palisades Rsvr nr Alpine	APR-JUL	1900	2230	2450	107	2670	3000	2286
	APR-SEP	2190	2570	2830	107	3090	3470	2647
GREYS R abv Palisades Reservoir	APR-JUL	240	300	340	102	380	440	333
	APR-JUL	240	300	340	102	380	440	333
SALT abv Reservoir nr Etna	APR-SEP	280	365	425	106	485	570	400
PALISADES Rsvr Inflow (adj)	APR-JUL	2520	3040	3392	105	3740	4260	3225
	APR-SEP	2780	3600	3990	106	4380	5190	3762
SNAKE nr Heise (2)	APR-JUL	2730	3290	3673	106	4050	4620	3451
	APR-SEP	2960	3830	4270	105	4710	5590	4048
SNAKE nr Blackfoot (2)	APR-JUL	3600	4530	5000	113	5470	6400	4444
	APR-SEP	4890	5670	6200	113	6730	7510	5482
PORTNEUF at Topaz	MAR-JUL	55	68	77	90	86	99	86
	MAR-SEP	65	81	91	85	101	117	107
AMERICAN FALLS RESV INFLOW	APR-JUL	1750	3000	3470	113	3940	5180	3066
	APR-SEP	2420	3200	3730	113	4260	5040	3303

UPPER SNAKE RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
HENRYS LAKE	90.4	72.9	86.0	74.0
ISLAND PARK	135.2	75.4	124.0	88.9
GRASSY LAKE	15.2	11.7	13.1	10.5
JACKSON LAKE	847.0	376.7	619.8	470.2
PALISADES	1400.0	408.4	1238.0	1035.6
RIRIE	80.5	19.1	39.9	36.4
BLACKFOOT	348.7	100.7	180.2	230.6
AMERICAN FALLS	1672.6	775.4	1165.6	1002.4

UPPER SNAKE RIVER BASIN
Watershed Snowpack Analysis - January 1, 1995

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Camas-Beaver Creeks	4	464	162
Henrys Fork River	10	263	154
Teton River	7	184	124
Snake above Jackson	10	209	119
Gros Ventre River	2	173	98
Hoback River	5	163	77
Greys River	4	169	82
Salt River	4	157	94
Snake above Palisades	24	187	102
Willow Creek	7	164	120
Blackfoot River	3	136	94
Portneuf River	2	208	100
Snake abv American Falls	34	182	103

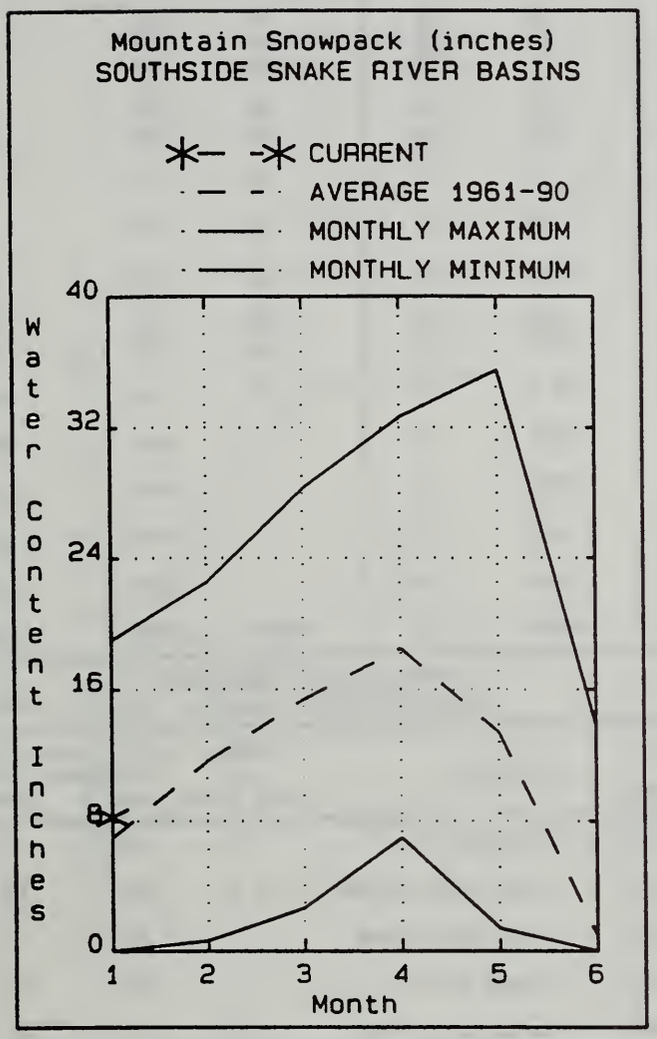
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

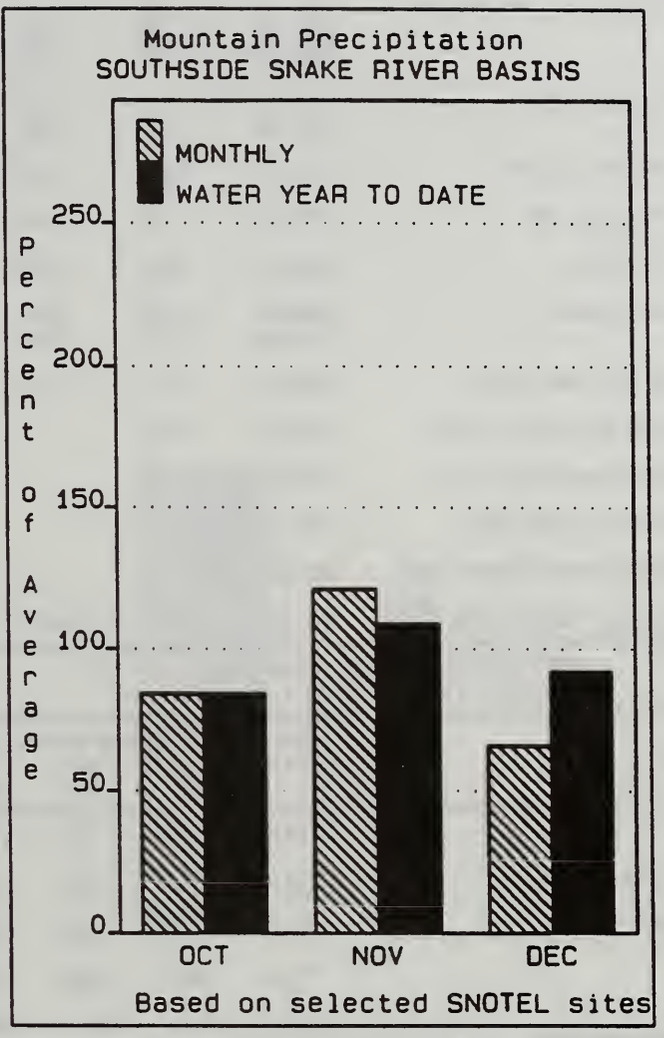
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

SOUTHSIDE SNAKE RIVER BASINS

JANUARY 1, 1995





WATER SUPPLY OUTLOOK

After another dry year in 1994, southern Idaho basins are in a situation similar to the start of the 1993 snow season. Above normal precipitation in November provided a good start for the snowpack, but December precipitation yielded only 66% of average. Mountain precipitation for the water year to date is 92% of average, the lowest in the state. Snowpack percentages have been decreasing since mid-December and as of January 1 range from 84% of average in the Raft River to 140% in the Owyhee basin. This year's snowpack is more than twice that of last year's at this time. Reservoir storage for Oakley, Salmon Falls, and Owyhee reservoirs is nearly the same as after the 1992 season with each reservoir holding about 10% of capacity. Streamflow forecasts range from 90 to 105% of average in this area. Water users should monitor conditions carefully as conditions can change with over half of the snow season still to come.

SOUTHSIDE SNAKE RIVER BASINS
Streamflow Forecasts - January 1, 1995

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
OAKLEY RESERVOIR Inflow (2)	MAR-JUL	18.0	26	32	93	37	45	34
	MAR-SEP	21	29	35	94	40	49	37
SALMON FALLS CK nr San Jacinto	MAR-JUN	55	77	92	107	107	129	86
	MAR-JUL	55	80	96	105	112	137	91
	MAR-SEP	59	82	99	103	116	139	96
BRUNEAU nr Hot Spring	MAR-JUL	148	205	247	105	285	345	235
	MAR-SEP	138	205	245	100	285	355	246
OWYHEE nr Gold Ck (2)	MAR-JUL	18.0	26	31	91	37	45	34
OWYHEE nr Owyhee (2)	APR-JUL	31	62	83	97	104	135	86
OWYHEE near Rome	FEB-JUL	362	537	676	109	830	1087	622
OWYHEE RESV INFLOW	FEB-JUL	410	584	720	110	870	1116	656
	APR-SEP	175	290	385	92	493	677	418
SUCCOR CK nr Jordan Valley	FEB-JUL	6.1	13.2	18.0	111	23	30	16.2
SNAKE RIVER at King Hill (2)	APR-JUL	900		2290	79		3680	2896
SNAKE RIVER near Murphy (2)	APR-JUL	955		2350	79		3750	2980
SNAKE RIVER at Weiser (2)	APR-JUL	1310		4430	81		7540	5465
SNAKE RIVER at Hells Canyon Dam	APR-JUL	1470		4900	80		8340	6129
SNAKE blw Lower Granite Dam (1,2)	APR-JUL	9090	16600	20000	92	23400	31000	21650

SOUTHSIDE SNAKE RIVER BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
OAKLEY	77.4	7.0	11.0	23.7
SALMON FALLS	182.6	13.1	42.0	44.9
WILDHORSE RESERVOIR	71.5	17.8	33.3	30.5
OWYHEE	715.0	86.1	422.8	421.0
BROWNLEE	1419.3	1305.7	1265.5	1269.8

SOUTHSIDE SNAKE RIVER BASINS
Watershed Snowpack Analysis - January 1, 1995

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Raft River	1	229	84
Goose-Trapper Creeks	2	253	89
Salmon Falls Creek	4	222	111
Bruneau River	5	249	119
Owyhee Basin Total	8	327	144

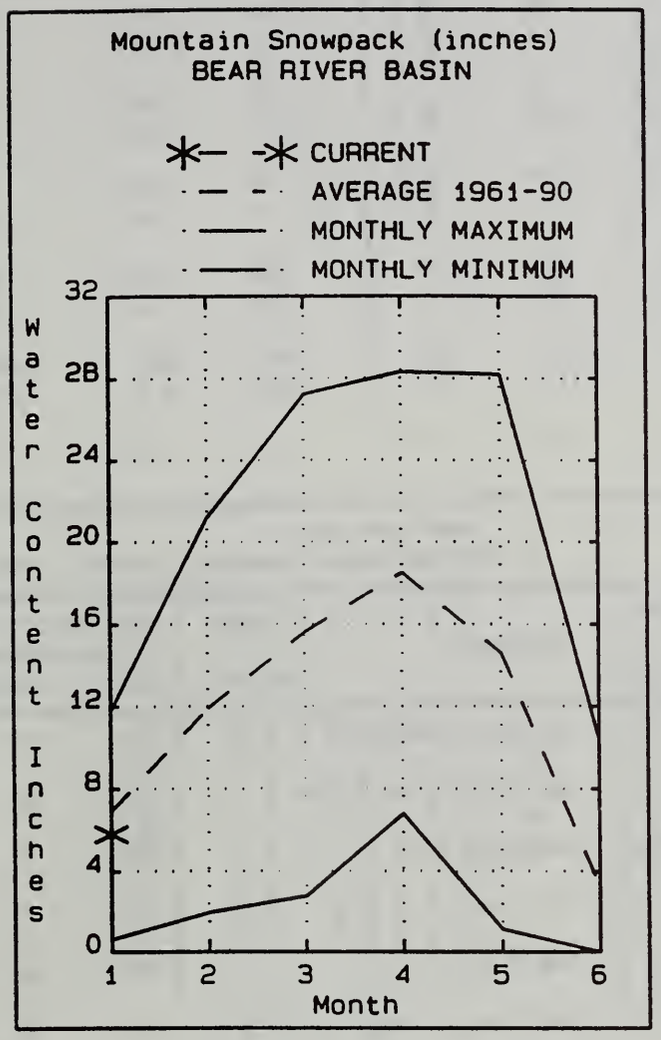
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

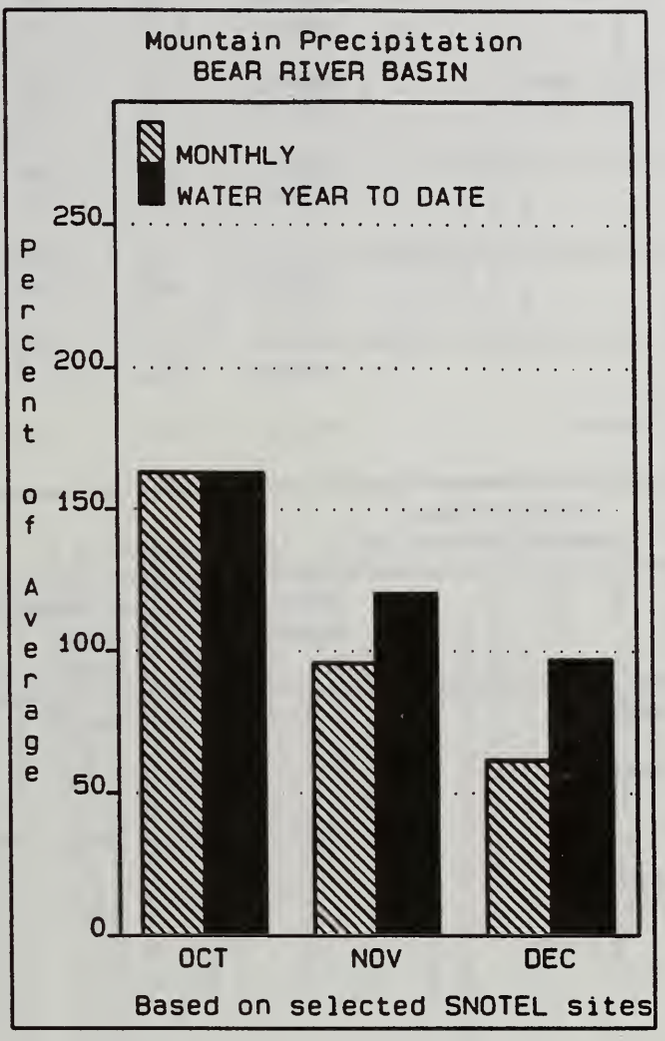
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

BEAR RIVER BASIN

JANUARY 1, 1995





WATER SUPPLY OUTLOOK

The new water year had a promising start in the Bear River basin with 163% of average precipitation in October. Drier conditions followed, with December yielding only 62% of average -- the least in the state. Mountain precipitation for the water year stands at 97% of average. Snowpacks in the Bear River are the lowest in the state with most basins reporting 80 to 90% of average. Bear Lake and Montpelier reservoirs are both storing around 20% of their capacity. Streamflow forecasts call for 80 to 90% of average runoff. Water users should stay in contact with their irrigation districts and be prepared for below normal water supplies because of the extremely low water levels in Bear Lake.

BEAR RIVER BASIN
Streamflow Forecasts - January 1, 1995

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BEAR R nr Randolph, UT	APR-JUL	30	78	110	93	143	190	118
	APR-SEP	27	78	113	89	148	199	127
SMITHS FORK nr Border, WY	APR-JUL	62	80	93	91	106	124	102
	APR-SEP	70	91	106	90	121	142	118
THOMAS FK nr WY-ID State Line	APR-JUL	13.0	20	27	82	37	58	33
	APR-SEP	14.0	22	29	81	39	61	36
BEAR R blw Stewart Dam nr Montpelier	APR-JUL	145	215	260	90	305	375	288
	APR-SEP	168	245	295	90	345	425	327
MONTPELIER CK at Irr Weir nr Montpel	APR-JUL	5.6	8.0	10.1	83	12.8	18.2	12.2
	APR-SEP	7.6	10.0	11.6	82	13.2	15.6	14.2
CUB R nr Preston	APR-JUL	25	36	43	91	50	61	47

BEAR RIVER BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
WOODRUFF NARROWS	57.3	8.5	31.0	---
WOODRUFF CREEK	4.0	1.7	1.9	---
BEAR LAKE	1421.0	299.5	519.3	992.6
MONTPELIER CREEK	4.0	0.7	2.4	1.6

BEAR RIVER BASIN
Watershed Snowpack Analysis - January 1, 1995

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Smiths & Thomas Forks	2	157	81
Bear River ab WY-ID line	7	163	80
Montpelier Creek	1	165	70
Mink Creek	1	170	97
Cub River	1	123	85
Bear River ab ID-UT line	13	158	83
Malad River	1	176	122

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Streamflow Adjustment List For All Forecasts Published In Idaho Basin Outlook Report

Streamflow forecasts are projections of runoff volumes that would have occurred naturally without influences from upstream reservoirs or diversions. These values are referred to as natural or adjusted flows. To make these adjustments, changes in reservoir storage, diversions, and interbasin transfers are added or subtracted from the observed (actual) streamflow volumes. The following list documents the adjustments made to each forecast point in this report.

Panhandle River Basins

KOOTENAI R AT LEONIA, ID
+ LAKE KOOCANUSA (STORAGE CHANGE)

CLARK FORK R AT WHITEHORSE RAPIDS, ID
+ HUNGRY HORSE (STORAGE CHANGE)
+ FLATHEAD LAKE (STORAGE CHANGE)
+ NOXON RAPIDS RESV (STORAGE CHANGE)

PEND OREILLE LAKE INFLOW, ID
+ PEND OREILLE R AT NEWPORT, WA
+ HUNGRY HORSE (STORAGE CHANGE)
+ FLATHEAD LAKE (STORAGE CHANGE)
+ NOXON RAPIDS (STORAGE CHANGE
+ PEND OREILLE LAKE (STORAGE CHANGE)

PRIEST R NR PRIEST R, ID
+ PRIEST LAKE (STORAGE CHANGE)

COEUR D'ALENE R AT ENAVILLE, ID - No Corrections

ST. JOE R AT CALDER, ID No Corrections

SPOKANE R NR POST FALLS, ID
+ COEUR D'ALENE LAKE (STORAGE CHANGE)

SPOKANE R AT LONG LAKE, ID
+ COEUR D'ALENE LAKE (STORAGE CHANGE)

Clearwater River Basin

CLEARWATER R AT OROFINO, ID - No Corrections

DWORSHAK RESERVOIR INFLOW, ID
+ CLEARWATER R NR PECK, ID
+ DWORSHAK RESV (STORAGE CHANGE)
- CLEARWATER R AT OROFINO, ID

CLEARWATER R AT SPALDING, ID
+ DWORSHAK RESV (STORAGE CHANGE)

Salmon River Basin

SALMON R AT SALMON, ID No Corrections

SALMON R AT WHITE BIRD, ID No Corrections

Weiser, Payette, Boise River Basins

WEISER R NR WEISER, ID - No Corrections

SF PAYETTE R AT LOWMAN, ID - No Corrections

DEADWOOD RESERVOIR INFLOW, ID
+ DEADWOOD R BLW DEADWOOD RESV NR LOWMAN
+ DEADWOOD RESV (STORAGE CHANGE)

NF PAYETTE R AT CASCADE, ID
+ CASCADE RESV (STORAGE CHANGE)

NF PAYETTE R NR BANKS, ID
+ CASCADE RESV (STORAGE CHANGE)

PAYETTE R NR HORSESHOE BEND, ID
+ DEADWOOD RESV (STORAGE CHANGE)
+ CASCADE RESV (STORAGE CHANGE)

BOISE R NR TWIN SPRINGS, ID - No Corrections

SF BOISE R AT ANDERSON RANCH DAM, ID
+ ANDERSON RANCH RESV (STORAGE CHANGE)

MORES CK NR ARROWROCK DAM, ID - No Corrections

BOISE R NR BOISE, ID
+ ANDERSON RANCH RESV (STORAGE CHANGE)
+ ARROWROCK RESV (STORAGE CHANGE)
+ LUCKY PEAK RESV (STORAGE CHANGE)

Wood and Lost River Basins

BIG WOOD R AT HAILEY, ID - No Corrections

BIG WOOD R NR BELLEVUE, ID - No Corrections

CAMAS CK NR BLAINE, ID - No Corrections

BIG WOOD R BLW MAGIC DAM NR RICHFIELD, ID
+ MAGIC RESV (STORAGE CHANGE)

LITTLE WOOD R NR CAREY, ID
+ LITTLE WOOD RESV (STORAGE CHANGE)

BIG LOST R AT HOWELL RANCH NR CHILLY, ID No Corrections

BIG LOST R BLW MACKAY RESV NR MACKAY, ID
+ MACKAY RESV (STORAGE CHANGE)

LITTLE LOST R BLW WET CK NR HOWE, ID No Corrections

Upper Snake River Basin

HENRYS FORK NR ASHTON, ID
+ HENRYS LAKE (STORAGE CHANGE)
+ ISLAND PARK RESV (STORAGE CHANGE)

HENRYS FORK NR REXBURG, ID
+ HENRYS LAKE (STORAGE CHANGE)
+ ISLAND PARK RESV (STORAGE CHANGE)
+ DIV FM HENRYS FK BTW ASHTON & ST. ANTHONY, ID
+ DIV FM HENRYS FK BTW ST. ANTHONY & REXBURG, ID
+ GRASSY LAKE (STORAGE CHANGE)

FALLS R NR SQUIRREL, ID
+ GRASSY LAKE (STORAGE CHANGE)

TETON R ABV SO LEIGH CK NR DRIGGS, ID - No Corrections

TETON R NR ST. ANTHONY, ID
- CROSS CUT CANAL
+ SUM OF DIVERSIONS ABV GAGE

SNAKE R NR MORAN, WY
+ JACKSON LAKE (STORAGE CHANGE)

PACIFIC CK AT MORAN, WY - No Corrections

SNAKE R ABV PALISADES RESV NR ALPINE, WY
+ JACKSON LAKE (STORAGE CHANGE)

GREYS R ABV PALISADES RESV, WY - No Corrections

SALT R ABV RESV NR ETNA, WY - No Corrections

PALISADES RESERVOIR INFLOW, ID
+ SNAKE R NR IRWIN, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)

SNAKE R NR HEISE, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)

SNAKE R NR BLACKFOOT, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)
+ DIV FM SNAKE R BTW HEISE AND SHELLY GAGES
+ DIV FM SNAKE R BTW SHELLY AND BLACKFT, ID

PORTNEUF R AT TOPAZ, ID - No Corrections

AMERICAN FALLS RESERVOIR INFLOW, ID
+ SNAKE R AT NEELEY, ID
+ AMERICAN FALLS (STORAGE CHANGE)
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)

Southside Snake River Basins

OAKLEY RESERVOIR INFLOW, ID
- + GOOSE CK ABV TRAPPER CK NR OAKLEY, ID
- + TRAPPER CK NR OAKLEY, ID

SALMON FALLS CK NR SAN JACINTO, NV No Corrections
BRUNEAU R NR HOT SPRINGS, ID No Corrections
OWYHEE R NR GOLD CK, NV
- + WILDHORSE RESV (STORAGE CHANGE)

OWYHEE R NR ROME, OR
- + WILDHORSE RESV (STORAGE CHANGE)
- + JORDAN VALLEY RESV (STORAGE CHANGE)

OWYHEE RESERVOIR INFLOW, OR
- + OWYHEE R BLW OWYHEE DAM, OR
- + OWYHEE RESV (STORAGE CHANGE)
- + DIV TO NORTH AND SOUTH CANALS

SUCCOR CK NR JORDAN VALLEY, OR No Corrections
SNAKE R - KING HILL, ID - No Corrections
SNAKE R NR MURPHY, ID No Corrections
SNAKE R AT WEISER, ID - No Corrections
SNAKE R AT HELLS CANYON DAM, ID
- + BROWNLEE RESV (STORAGE CHANGE)

Bear River Basin

BEAR R NR RANDOLPH, UT
- + SULPHUR CK RESV (STORAGE CHANGE)
- + CHAPMAN CANAL DIVERSION
- + WOODRUFF NARROWS RESV (STORAGE CHANGE)

SMITHS FORK NR BORDER, WY - No Corrections
THOMAS FORK NR WY-ID STATELINE - No Corrections
BEAR R BLW STEWART DAM, ID
- + SULPHUR CK RESV (STORAGE CHANGE)
- + CHAPMAN CANAL DIVERSION
- + WOODRUFF NARROWS RESV (STORAGE CHANGE)
- + TOTAL OF 12 CANALS
- + WESTFORK CANAL
- + DINGLE INLET CANAL
- + RAINBOW INLET CANAL

MONTPELIER CK NR MONTPELIER, ID
- + MONTPELIER CK RESV (STORAGE CHANGE)

CUB R NR PRESTON, ID No Corrections

RESERVOIR CAPACITY DEFINITIONS - Different agencies use various definitions when reporting reservoir capacity and contents. Reservoir storage terms include dead, inactive, active, and surcharge storage. The table below lists these volumes for each reservoir in this report, and defines the storage volumes that NRCS uses when reporting capacity and current reservoir storage. In most cases, NRCS reports usable storage, which includes active and inactive storage.

BASIN/ RESERVOIR	DEAD STORAGE	INACTIVE STORAGE	ACTIVE STORAGE	SURCHARGE STORAGE	NRCS CAPACITY	NRCS FIGURES INCLUDE
PANHANDLE REGION						
HUNGRY HORSE	39.73	--	3151.00	--	3451.0	ACTIVE
FLATHEAD LAKE	Unknown	--	1791.00	--	1971.0	ACTIVE
NOXON RAPIDS	Unknown	--	335.00		335.0	ACTIVE
PEND OREILLE	406.20	112.40	1042.70		1561.3	DEAD + INACTIVE + ACTIVE
COEUR D'ALENE	--	13.50	225.00	--	238.5	INACTIVE + ACTIVE
PRIEST LAKE	20.00	28.00	71.30		119.3	DEAD + INACTIVE + ACTIVE
CLEARWATER BASIN						
DWORSHAK		1452.00	2007.00		3459.0	INACTIVE + ACTIVE
WEISER/BOISE/PAYETTE BASINS						
MANN CREEK	1.61	0.24	11.10		11.1	ACTIVE
CASCADE	--	50.00	653.20		703.2	INACTIVE + ACTIVE
DEADWOOD	1.50		161.90		161.9	ACTIVE
ANDERSON RANCH	29.00	41.00	421.18		464.2	INACTIVE + ACTIVE
ARROWROCK	--	--	286.60		286.6	ACTIVE
LUCKY PEAK	--	28.80	264.40	13.80	293.2	INACTIVE + ACTIVE
LAKE LOWELL	--	8.00	169.10		169.1	ACTIVE
WOOD/LOST BASINS						
MAGIC	--	--	191.50		191.5	ACTIVE
LITTLE WOOD	--	--	30.00		30.0	ACTIVE
MACKAY	0.13		41.37		44.4	ACTIVE
UPPER SNAKE BASIN						
HENRYS LAKE			90.40		90.4	ACTIVE
ISLAND PARK	0.40		127.30	7.90	135.2	ACTIVE + SURCHARGE
GRASSY LAKE	--		15.18		15.2	ACTIVE
JACKSON LAKE			847.00		847.0	ACTIVE
PALISADES	44.10	155.50	1200.00		1400.0	DEAD + INACTIVE + ACTIVE
RIRIE	4.00	6.00	80.54	10.00	80.5	ACTIVE
BLACKFOOT	--		348.74		348.7	ACTIVE
AMERICAN FALLS	--		1672.60		1672.6	ACTIVE
SOUTHSIDE SNAKE BASINS						
OAKLEY	--		77.40		77.4	ACTIVE
SALMON FALLS	48.00		182.65		182.6	ACTIVE
WILDHORSE	--		71.50		71.5	ACTIVE
OWYHEE	406.83		715.00		715.0	ACTIVE
BROWNLEE	0.45	444.00	975.30		1419.3	INACTIVE + ACTIVE
BEAR RIVER BASIN						
WOODRUFF NARROWS		1.50	57.30		57.3	ACTIVE
WOODRUFF CREEK		4.00	4.00		4.0	ACTIVE
BEAR LAKE	--		1421.00		1421.0	ACTIVE
MONTPELIER CREEK	0.21		3.84	--	4.0	DEAD + ACTIVE

Interpreting Streamflow Forecasts

Introduction
Eech month, five forecasts ere issued for each forecast point end each forecast period. Unless otherwise specified, all streamflow forecests are for streemflow volumes that would occur neturally without any upstream influences. Weter users need to know what the different forecests represent if they are to use the information correctly when making operetional decisions. The following is en explenetion of each of the forecasts.

Most Probable (50 Percent Chance of Exceeding) Forecast. This forecast is the best estimate of streamflow volume that can be produced given current conditions and based on the outcome of similar past situations. There is a 50 percent chence that the streamflow volume will exceed this forecast velue. There is a 50 percent chance thet the streamflow volume will be less than this forecast value.

The most probable forecast will rarely be exectly right, due to errors resulting from future weather conditions and the forecast equation itself. This does not meen thet users should not use the most probable forecest; it means that they need to evaluete existing circumstances and determine the amount of risk they are willing to take by accepting this forecast velue.

To Decrease the Chance of Having Too Little Water
If users want to make sure there is enough weter aveilable for their operations, they might determine that a 50 percent chence of the streamflow volume being lower than the most probable forecast is too much risk to take. To reduce the risk of not having enough weter available during the forecast period, users can bese their operational decisions on one of the forecasts with a greater chance of being exceeded (or possibly some point in-between). These include:

70 Percent Chance of Exceeding Forecast. There is a 70 percent chance that the streemflow volume will exceed this forecast value. There is a 30 percent chance the streemflow volume will be less than this forecest velue.
90 Percent Chance of Exceeding Forecast. There is e 90 percent chance thet the streamflow volume will exceed this forecast value. There is e 10 percent chance the streamflow volume will be less than this forecast value.

To Decrease the Chance of Having Too Much Water
If users want to make sure they don't have too much water, they might determine that a 50 percent chance of the streamflow being higher then the most probable forecast is too much of a risk to take. To reduce the risk of having too much water available during the forecast period, users can base their operationel decisions on one of the forecasts with a smaller chance of being exceeded. These include:

30 Percent Chance of Exceeding Forecast. There is a 30 percent chance thet the streamflow volume will exceed this forecast value. There is a 70 percent chance the streemflow volume will be less than this forecast value.
10 Percent Chance of Exceeding Forecast. There is e 10 percent chance thet the streemflow volume will exceed this forecast value. There Is e 90 percent chance the streemflow volume will be less then this forecast value.

Using the forecasts - an example

Using the Most Probable Forecast. Using the exemple forecests shown below, users can reasonably expect 36,000 acre-feet to flow past the geging station on the Mary's River neer Deeth between Merch 1 end July 31.

Using the Higher Exceedance Forecasts. If users enticipate a somewhat drier trend in the future (monthly end seesonal weather outlooks are availeble from the Netionel Weather Service every two weeks), or if they are operating at a level where an unexpected shortege of water could ceuse problems, they might want to plen on receiving only 20,000 acre-feet (from the 70 percent chence of exceeding forecast). In seven out of ten yeers with similar conditions, streemflow volumes will exceed the 20,000 acre-foot forecast.

If users enticipete extremely dry conditions for the remainder of the season, or if they determine the risk of using the 70 percent chance of exceeding forecast is too greet, then they might plen on receiving only 5000 acre-feet (from the 90 percent chance of exceeding forecast). Nine out of ten years with similar conditions, streemflow volumes will exceed the 5000 ecre foot forecast.

Using the Lower Exceedance Forecasts. If users expect wetter future conditions, or if the chance that five out of every ten years with similar conditions would produce streamflow volumes greater then 36,000 acre-feet was more then they would like to risk, they might plan on receiving 52,000 acre-feet (from the 30 percent chence of exceeding forecast) to minimize potential flooding problems. Three out of ten years with similar conditions, streemflows will exceed the 52,000 ecre-foot forecast.

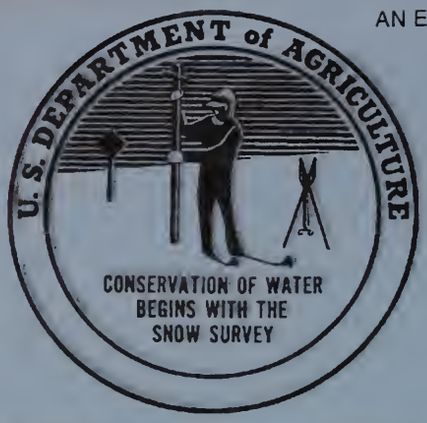
In yeers when users expect extremely wet conditions for the remainder of the season and the threet of severe flooding end downstream damege exists, they might choose to use the 76,000 acre-foot (10 percent chance of exceeding) forecast for their water manegement operetions. Streamflow volumes will exceed this level only one year out of ten.

UPPER HUMBOLDT RIVER BASIN

FORECAST POINT	FORECAST PERIOD	STREAMFLOW FORECASTS < DRIER — FUTURE CONDITIONS — WETTER > Chance of Exceeding 90% (1000AF)	70% (1000AF)	50% (Most Probable (1000AF)	(% AVG)	30% (1000AF)	10% (1000AF)	25 YR (1000AF)
MARY'S RIVER	MAR JUL	5.0	20.0	36	77	52	76	47
nr Deeth	APR-JUL	8 0	17.0	31	74	45	67	42
LAMOILLE CREEK	MAR-JUL	6.0	16.0	24	79	32	43	31
nr Lamolile	APR-JUL	4.0	15.0	22	75	30	41	30
NF HUMBOLDT RIVER at Devils Gate	MAR JUL	6 0	12.0	43	73	74	121	59

For more information concerning streamflow forecasting ask your local NRCS field office for a copy of "A Field Office Guide for Interpreting Streamflow Forecasts".

AN EQUAL OPPORTUNITY EMPLOYER



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In addition to basin outlook reports, a Water Supply Forecast for the Western United States is published by the Natural Resources Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Natural Resources Conservation Service, West National Technical Center, 101 SW Main Street, Suite 1700, Portland, OR 97204-3225.